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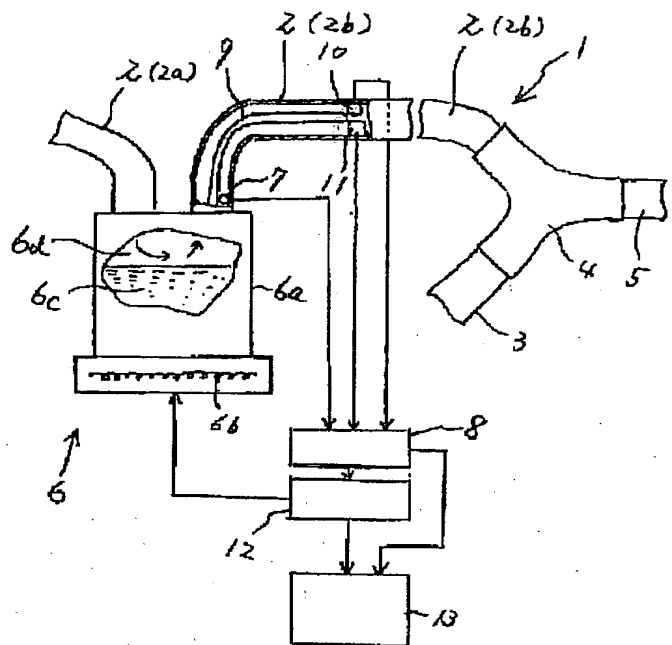
APPLICATION DATE : 14-11-96
APPLICATION NUMBER : 08303341

APPLICANT : NIKKISO Y S I KK;

INVENTOR : KOBAYASHI YOSHIKAZU;

INT.CL. : A61M 16/16 A61M 16/00

TITLE : ARTIFICIAL RESPIRATORY
APPARATUS AND IMPROVED
HEATING/ HUMIDIFYING DEVICE



1026-59

ABSTRACT : PROBLEM TO BE SOLVED: To monitor humidity inside an inhalation tube by calculating the absolute humidity of the humidified inhalation from the relative humidity measured by a humidity sensor installed inside the inhalation tube and the temperature of the humidified inhalation.

SOLUTION: A humidity sensor 11 is installed inside a humidifier inhalation sending tube 2b, and various kinds of data such as the corresponding data of signals outputted from a second temperature sensor 10 to the relative humidity and the corresponding data of the temperature to the absolute volume of saturated vapor, etc., are inputted to the memory part of a humidity monitor 8. The operation part of the humidity monitor 8 is to calculate the absolute humidity from the temperature and the relative humidity, compare it with the prescribed absolute humidity, compare the calculated absolute humidity with the absolute volume of saturated vapor, compare the temperature measured by a first temperature sensor 7 and the temperature measured by the second temperature sensor 10, and conduct several other operations, and to output the data to a humidity control part 12. The humidity control part 12 is to output control signals to control the action of a water heater 6b and an inflation heater 9.

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PATENT ABSTRACTS OF JAPAN

(21) Application number: **08303341**(51) Intl. Cl.: **A61M 16/16 A61M 16/00**(22) Application date: **14.11.96**

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IMPROVED HEATING/
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(57) Abstract:

PROBLEM TO BE SOLVED: To monitor humidity inside an inhalation tube by calculating the absolute humidity of the humidified inhalation from the relative humidity measured by a humidity sensor installed inside the inhalation tube and the temperature of the humidified inhalation.

SOLUTION: A humidity sensor 11 is installed inside a humidifier inhalation sending tube 2b, and various kinds of data such as the corresponding data of signals outputted from a second temperature sensor 10 to the relative humidity and the corresponding data of the temperature to the absolute volume of saturated vapor, etc., are inputted to the memory part of a humidity monitor 8. The operation part of the humidity monitor 8 is to calculate the absolute humidity from the temperature and the relative

humidity, compare it with the prescribed absolute humidity, compare the calculated absolute humidity with the absolute volume of saturated vapor, compare the temperature measured by a first temperature sensor 7 and the temperature measured by the second temperature sensor 10, and conduct several other operations, and to output the data to a humidity control part 12. The humidity control part 12 is to output control signals to control the action of a water heater 6b and an inflation heater 9.

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